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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,894	03/15/2005	Bin Yin	NL 020927	9543

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
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EXAMINER

NGUYEN, LINH THI

ART UNIT PAPER NUMBER

2627

DATE MAILED: 05/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/527,894	YIN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Linh T. Nguyen	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-12 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 11 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 11 is drawn to a "program" *per se* as recited in the preamble and as such is non-statutory subject matter. See MPEP § 2106.IV.B.1.a. Data structures not claimed as embodied in computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and

other claimed elements of a computer, which permit the computer program's functionality to be realized.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 and 4-12 are rejected under 35 U.S.C. 102(b) as being unpatentable by Kim (US Patent number 6175540).

In regards to claims 1, 5, 8, and 11, Kim discloses an apparatus, optical unit, method and program for reading and/or writing data from and/or onto a data carrier (Fig. 5), said data carrier containing wobbled tracks (Fig. 6A-B), said apparatus having scanning means for scanning said tracks (Column 5, lines 31-35), detection means for detecting at least two elementary signals (Fig. 5, signals FES and SES) when scanning said tracks, wobble recovery means for generating a wobble signal (Pte) from said at least two elementary signals (Fig. 5, signals FES and SES go to elements 32, 34 to generate a Pte signal), and wobble processing means for filtering said at least two elementary signals with at least an adaptive filter (Fig. 5, element 44) and for generating an improved wobble signal by subtracting said filtered elementary signals from said wobble signal (Fig. 5, signals FES and SES goes into element 44 (adaptive filter) and

depending on the results DCOF and Pte can either be negative and so the addition 44 become a subtraction, and generate a improved signal Te).

In regards to claims 2, 6, and 9, Kim discloses an apparatus, optical unit, and method having data recovery means for generating a data signal (Fig. 5, signals DCS and SCS) from said at least two elementary signals (Fig. 5, signals FES and SES), wherein said adaptive filter uses filtering coefficients chosen so as to minimize the cross-correlation between said improved wobble signal and said data signal (Fig. 5, element 46; data signal DCS and SCS goes into the filter to generate DCOF in correlation with Te (improved wobble signal)).

In regards to claims 4, 7, and 10, Kim discloses an apparatus, optical unit, and method, wherein said adaptive filter uses filtering coefficients (Fig. 5, element 46) chosen so as to minimize the difference (Fig. 5, element 48) between a scaled version of the improved wobble signal (Fig. 5, signal Te) and a reference wobble signal (Fig. 5, Pte) reconstructed on the basis of the generated wobble signal (Fig. 5).

In regards to claims 12/1 or 12/2, Kim discloses an apparatus comprising sampling means for sampling said at least two elementary signals at a frequency lower than the data bit rate (Column 5, lines 38-40; LPF eliminate radio frequency which is low compared to the data bit rate).

***Allowable Subject Matter***

Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In regards to claim 3, the prior art made of record neither discloses nor suggests the combination of limitations, **wherein said filtering coefficients are updated by using an iterative gradient algorithm minimizing a cost function having an instantaneous value equal to the instantaneous value of the squared product of said improved wobble signal and said data signal.**

#### **Citation of Relevant Prior Art**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bakx (US Patent Number 5631892) discloses two detected signals and the wobble signal to make the DC component of the wobble signal equal to zero.

Osada (US Publication 2002/0036967) discloses a predetermined coefficient  $k$  multiplied to the detecting signal A, B, C, and D.

Ohtake et al (US Patent Number 4866688) discloses a correction of offset using signals detected from photo-detector.

#### **Conclusion**

Art Unit: 2627

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh T. Nguyen whose telephone number is 571-272-5513. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A. Wellington can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LN  
May 19, 2006

  
ANDREA WELLINGTON  
SUPERVISORY PATENT EXAMINER